

WHAT IS CLAIMED IS:

1. A method of manufacturing a pump impeller comprising:

forming in a single molding operation a shroud, vanes
5 and shaft sleeve so as to precisely obtain alignment of an axis of
rotation of said sleeve with a longitudinal center axis of an
annular inlet ring mounted on said shroud where said annular inlet
ring and said sleeve are on opposite sides of said shroud, whereby
10 during rotation of said impeller smooth, efficient substantially
noise-free operation is obtained because said sleeve is in balance
with said annular inlet ring.

2. A pump impeller comprising:

a series of vanes having an outer end which is
integrally mounted on a shroud, said shroud having a centrally
15 located annular inlet ring which provides an inlet to an eye of
said impeller; and

a hub integrally connected to an inner end of said
vanes, said hub having a sleeve connected thereto, said sleeve
having an axis of rotation, said inlet having a longitudinal
20 center axis, said axis of rotation being aligned with said
longitudinal center axis, whereby rotation of said impeller
produces essentially no vibration with said impeller rotating
smoothly, efficiently and substantially noise-free.

3. The pump impeller as defined in Claim 2 wherein:

a cover mounted on said hub covering said vanes, said cover being located opposite said shroud relative to said vanes substantially enclosing said vanes.

5 4. The pump impeller as defined in Claim 2 wherein:

said sleeve located on one side of said vanes and said shroud being located on the opposite side of said vanes.

5. The pump impeller as defined in Claim 4 wherein:

said sleeve being at least one inch in length.

10 6. The pump impeller as defined in Claim 2 wherein:

said inlet being larger in size than said hub, whereby said inlet being larger than said hub, said pump impeller can be manufactured in a single molding operation.